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Contents lists available at ScienceDirect

Industrial Marketing Management

journal homepage: www.elsevier.com/locate/indmarman



Don't adapt, shape! Use the crisis to shape your minimum viable system – And the wider market



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ARTICLE INFO

Keywords:
Market shaping
Shaping strategies
Market systems
Crisis
Timing
Minimum viable system

ABSTRACT

In addition to being resilient and adaptive, firms should also utilize shocks such as COVID-19 to generate new business opportunities. Two processes make markets and other economic systems more malleable during times of crises: (1) as the stasis of the market system is interrupted, it forces the system "into movement" - and it requires less effort to nudge an already moving system in a specific direction; and (2) as deeply-rooted mental models are challenged during crises, any market-shaping initiative which promises a credible end to current instability with a new equilibrium will appeal to the natural human craving for stability. This malleability, in turn, creates multiple opportunities for firms to shape their markets and hence drive the market's development in favorable directions. We outline a generic process of market-shaping, comprising eight steps: (1) determining whether to act now or actively wait, (2) deciding whether to be a shaper or a supporter, (3) developing a scalable vision for the future market, (4) recognizing the minimum viable system linked to this vision, (5) driving changes in market-level properties, (6) securing that value is quantified and shared, (7) inviting actor engagement for implementation, and (8) defending against possible retailations from threatened market systems.

1. Introduction: Never waste a good crisis

Non è mai alcuna cosa sì disperata, che non vi sia qualche via da poterne sperare. (No circumstance is ever so desperate that one cannot nurture some spark of hope.) Niccolò Machiavelli, The Mandrake (1524).

It is common wisdom that one should never let a good crisis go to waste. You can utilize crises both to highlight the more minor weaknesses of your organization to be rapidly fixed and to make more dramatic changes to your business model. Without a doubt, managers, scholars and consultants are now – faced with COVID-19 and its wider ramifications – looking into how to make organizations more resilient (Van Der Vegt, Essens, Wahlström, & George, 2015) or even antifragile (Taleb, 2012). However, we propose that the current crisis poses opportunities that go beyond improving the state of your organization. This period of turbulence can also be used to improve your business network – and ultimately the market.

During the last years, researchers are increasingly emphasizing that markets are not given and deterministic contexts, exogenous to the firm

(Priem, Butler, & Li, 2013) to which firms and other market actors must adapt. Instead they propose a change in perspective: viewing markets as malleable or plastic complex adaptive systems (Nenonen et al., 2014), which are, essentially, outcomes of agent-driven efforts (Dew & Sarasvathy, 2016; Gavetti, Helfat, & Marengo, 2017; Kjellberg, Azimont, & Reid, 2015; Nenonen, Storbacka, & Windahl, 2019). This change in perspective requires a corresponding shift in strategies. Instead of arguing for firms to be resilient, flexible, alert and ready to adapt to contingencies in the increasingly complex business environment, Patvardhan and Ramachandran (2020) suggest a need for shaping-oriented strategies, focusing on artificial evolution processes. i.e., "interventions by which a firm's leaders challenge the status quo and leverage the internal ecology of the organization to nudge the evolution of the business landscape toward a preferred direction" (p. 1).

Fundamentally, a focal actor can choose to become a 'market champion' (Johne, 1999) by driving the market's development in favorable directions. Such strategies, often labelled shaping strategies or market-shaping strategies, have been subject to increasing research interest both in marketing and management during the recent years (cf., Baker & Nenonen, 2020; Baker, Storbacka, & Brodie, 2019; Brege &

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¹ The quote "never waste a good crisis" or "never let a good crisis go to waste", has been linked, among others, to Nicolò Machiavelli, Winston Churchill, and Rahm Emanuel, President Obama's White House Chief of Staff, commenting in 2009 on the Global Financial Crisis.

Kindström, 2020; Dew & Sarasvathy, 2016; Gavetti et al., 2017; Kindström, Ottosson, & Carlborg, 2018; Kjellberg et al., 2015; Maciel & Fischer, 2020; Nenonen & Storbacka, 2018; Nenonen, Storbacka, & Frethey-Bentham, 2019; Nenonen, Storbacka, & Windahl, 2019; Patvardhan & Ramachandran, 2020; Storbacka, 2019; Struben, Lee, & Bingham, 2020; Windahl, Karpen, & Wright, 2020).

Consequently, the argument in this article is that – in addition to adapting their value chains and work practices to fit the on-going COVID-19 crisis and the post-COVID operating environment – firms should also actively "look around the corner" (McGrath, 2019). It is obvious that the current crisis generates an assembly of inflection points in numerous development trajectories in the business environment, and this in turn creates considerable opportunities for shaping the business environment in multiple dimensions. Hence, the purpose of the article is two-fold: (1) to investigate how to time market-shaping strategies, and (2) to outline a generic market-shaping process.

2. Market-shaping is all about timing - And the time to act is now

Disruptions and crises are particularly suitable times for shaping markets and other economic systems. Market systems which are turbulent, discontinuous, or unstable are more malleable and, hence, more shapeable. There are two process at play: (1) as the stasis of the market system is interrupted, it forces the system "into movement" - and it requires less effort to nudge an already moving system in a specific direction; and (2) as deeply-rooted mental models are challenged during crises, actors are more prone to engage in higher-level learning, suggesting that any market-shaping initiative which promises a credible end to current instability with a new equilibrium will appeal to the natural human craving for stability.

2.1. Malleability leads to shapeability

Market systems are plastic and differ in their capacity to change (take form) and to remain stable (retain form) during different points of time (Nenonen et al., 2014). Viable market systems have several mechanisms that stabilize them, ranging from high levels of compatibility between the system elements to various feedback loops (Peters, Nenonen, Polese, Frow, & Payne, 2020). Due to these mechanisms, stable market systems are more likely to resist intentional attempts to shape them than market systems that are undergoing changes. One can argue that market systems function like physical systems in that the static coefficient of friction is much larger than the kinetic one. Consequently, nudging an already-disrupted market into a specific favored direction is far easier than stirring a static one into motion in any direction (Nenonen & Storbacka, 2018). The niche construction theorists acknowledge, in a similar vein, that ungoverned occurrences such as environmental or financial crises, give rise to deliberate shaping by individual actors or collectives (Luksha, 2008).

Therefore, it seems obvious that market shapers should time their efforts to coincide with periods of instability or discontinuity (McGrath, 2019; Nenonen & Storbacka, 2018). What this also suggests is that actors with less clout have a greater chance to change their market if they time their shaping efforts to periods in which this system is already experiencing turmoil and institutional conflict.

2.2. Question mental models and support higher-level learning

As argued by economic sociology (Callon, 1998; Granovetter, 1992), markets can be viewed as socially constructed human artifacts, implying that markets in the objective sense do not exist; i.e., there are no markets that exist independently from us humans. Markets are what we – market actors – make them to be (Kjellberg et al., 2012). Particularly, shared cognitive structures emerge among market actors over time, stabilizing the market (Rosa, Porac, Runser-Spanjol, & Saxon, 1999). In other words: as market actors start to view various elements

of the market as stable, the market becomes increasingly so.

However, this link between the shared cognitive structures and the markets' stability works in the other direction, too. Crises in the business environment, whether man- or virus-made, challenge the stabilitypromoting mental models, i.e., dominant logics (Prahalad, 2004) or industry recipes (Spender, 1989) that cause active inertia (Sull, 1999) for firms and markets alike. A crisis is a discontinuous event that creates a disorienting dilemma (Mezirow, 1991), which decreases the level of inertia around established roles and shared frames of reference. Therefore, it often acts as a "trigger" (Storbacka & Nenonen, 2015) for higher-level learning, i.e., learning beyond adaptation and beyond the extant learning boundary. This type of learning has been called transformative (Mezirow, 1991), expansive (Engeström, 2001) or doubleloop (Argyris & Schön, 1978) learning. Such learning requires proactive unlearning of key organizational processes and the questioning of an organization's assumptions about itself and its environment (Morgan & Berthon, 2008). This leads to breakdowns in the flow of normal actions and forces actors to question their current practices (Cope, 2003).

The consequence is simple: a crisis both forces and enables highlevel learning in which both human and organizational actors are ready to question current mental models and managerial practices and engage in developing new ones.

3. How to shape markets? The market-shaping process

In this section we synthesize the current notions in the emerging literature on market-shaping and shaping strategies (cf., Nenonen & Storbacka, 2018; Patvardhan & Ramachandran, 2020) into a market-shaping process, comprising eight steps: (1) determining whether to act now or actively wait, (2) deciding whether to be a shaper or a supporter, (3) developing a scalable vision for the future market, (4) recognizing the minimum viable system linked to this vision, (5) driving changes in market-level properties, (6) securing that value is quantified and shared, (7) inviting actor engagement for implementation, and (8) defending against possible retaliations from threatened market systems. This process – leading to a shaped market - is summarized in Fig. 1.

3.1. Act now or actively wait?

Strategy research and many strategy practitioners have an implicit bias for action. However, to have a genuine strategy is also about saying "no" and being clear about the opportunities that firm will not pursue (cf., Rumelt, 2011; Magretta, 2011). This applies to market shaping strategies, too. When contemplating the possibility of shaping markets, companies should pause and consider critically whether it is in their best interests – here and now – to start influencing the development path of their market (Nenonen & Storbacka, 2018).

Thus, the prospective market-shaper first needs to determine whether the right time to act is now – or whether it makes sense to wait further. As discussed above, crises lead to malleability in markets, which in turn leads to shapeability of these markets. However, the fact that a market is shapeable now does not mean that it would not become even more shapeable in the near future. Perhaps there is another major economic stimulus package in preparation, and the market-shaping endeavor is better timed only after its launch. Alternatively, maybe the market is now at its most malleable, and waiting further would unduly increase the chances of someone else nudging the market onto a path that is detrimental to our aspirations.

The likely future "shape" of the market being shaped gives some indications about this now vs. later timing decision. If the future market is likely to exhibit network effects, as many platform-based markets do (McIntyre & Srinivasan, 2017), then there may be some early-mover advantages. However, if the functioning of the future market is dependent on complementary assets and resources that are not available at all, or not available in sufficient quantities, then it is advisable to wait before commencing market-shaping (Adner, 2012; Adner &

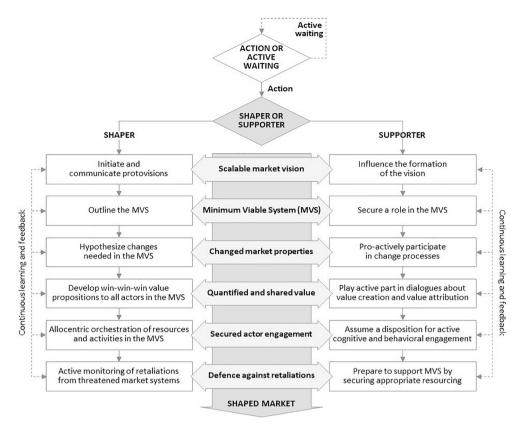


Fig. 1. Market-shaping process.

Kapoor, 2010).

In case the decision is to wait, then it does not indicate doing nothing. Quite to the contrary, firms aspiring to shape their markets should engage in what management scholars have called 'strategy as active waiting' (Sull, 2005), i.e., making all necessary preparations but waiting for the market to be ready to be influenced, be it a golden opportunity or a sudden-death threat. Even though most of the popular press portrays COVID-19 as a negative shock to economies globally, it may also be a golden opportunity for many organizations.

3.2. Be a shaper or a supporter?

Regardless of the optimal timing decision discussed above, firms need to determine whether they should be leading the eventual market-shaping initiative – or to play a supporting role. A decision is needed whether to innovate or imitate, and whether to adopt the role of a first mover, a fast follower or a late entrant; (cf., Katila & Chen, 2008; Markides & Geroski, 2004; Posen, Lee, & Yi, 2013). The extant research has investigated these strategic choices in the context of market entry (Barczak, 1995; Chiu, Chen, Shyu, & Tzeng, 2006) and innovation success (Katila & Chen, 2008; Posen et al., 2013). Entering an existing market as a new company or with a new product is, however, a different strategic challenge from shaping a market, and hence we cannot rely solely on these studies for definite guidance.

Again, the likely future "shape" of the market provides insights to this decision. In case the market is likely to be reliant on a single keystone organization (Iansiti & Levien, 2004), orchestrating the market and holding a key leadership role in it, then this keystone organization should assume the role of the market shaper. Under other circumstances, when the playing field is more even, multiple firms may consider assuming the role of the leading market-shaper.

Even though the everyday terms and sayings such as "trailblazer" and "playing second fiddle" elevate the role of the shaper, market-shaping is very much a collective endeavor. Collective action is found

out to be crucial to shaping existing markets (Baker & Nenonen, 2020; Maciel & Fischer, 2020) and creating new ones (Lee, Struben, & Bingham, 2018; Struben et al., 2020). Therefore, supporter firms – by being part of this necessary collective action – play an instrumental part in market-shaping strategies. This supporter role may well allow the firm to spend less resources in the market-shaping process, but still benefit from the shaped market, and be able to influence how exactly the market-shaping unfolds. Thus, also supporter firms should have a thorough understanding of all the steps of the market-shaping processes.

Finally, it would be too simplistic to assume that market-shaping roles – that of a shaper and a supporter – would remain unchanged during a long-term, systemic change process. Instead, these roles are often fluid: a shaper may turn into a supporter later on – and vice versa. Hence, having sufficient strategic flexibility to revisit this decision over the course of the market-shaping process is not only possible, but often necessary.

3.3. Develop a scalable vision for the future market

The starting point for many market-shaping journeys is a deep dissatisfaction with the current state of things, leading the individual or the collective to question the status quo (Patvardhan & Ramachandran, 2020). To use the crisis as an opportunity for higher level system-based learning, a focal actors needs to engage key individuals both in its own organization and in the wider market system to analyze the questions raised by the crisis and critically consider and, if needed, reject some of the accepted practices and 'wisdoms' of the existing situation.

However, mere frustration with the status quo is not enough; it is also necessary to imagine an alternate state (Nenonen & Storbacka, 2018; Patvardhan & Ramachandran, 2020), by modeling possible and alternative ways (sometimes called 'protovisions') to solve the identified problem. A key skill for a focal actor is the authoring of meanings (Weick, 1995), which can take the form of articulating simplified

 Table 1

 List of possible changes to induce via market-shaping.

Category	Sets	Market elements that can be influenced	Illustrative examples related to COVID-19
Exchange process	Products	Product properties: product and service innovations to increase use-value Scope of the product (bundling vs. unbundling) Property rights being exchanged (e.g., ownership vs. access)	Developing customer tracking application for hospitality sector to enable rapid contact tracing after a possible positive case Allowing customers to pick-and-choose the individual services included in previously bundled logistics solutions to lower the perceived risk of overpaying Moving from leasing ICT equipment to be used in offices to selling ICT equipment to be used in home offices
	Price or pricing	Pricing logic/price carrier Price point	Moving from "per person/year" to "per trip" pricing in corporate travel insurance to acknowledge the current drop (and likely future increase) in travel volumes Increasing the price point considerably to signal the move from a mass service to
	Matching methods	Channels connecting providers and customers	more restricted one (that is less prone to infections) Changing agricultural auctions from physical ones to fully online
		Transaction mechanism (how providers and customers are matched)	Moving from online auctions to "everyone gets x% of their requested volume at the average bid price" to manage an acute shortage of critical supplies
Actor network	Supply network	Number of participants in the supply network	Diversifying the raw material provision by increasing the number of providers
		Types of participants in the supply network	Sourcing some components from local manufacturers to make the global supply chain more resilient
		Work division in the supply network (e.g., out- vs. insourcing)	Insourcing assembly operations to reduce the reliance on far-away partners
	Customer-side features	New customer groups	Broadening the target customer definition of online grocery shopping from only families and professional couples to also elderly people
		Customers' competences to use the product / service	Tutorials on how to use videoconferencing services to their full potential
		Customers' value perceptions (utility sought)	Demonstrating that leadership development can be delivered more effectively and efficiently online than in a traditional classroom setting
		Work division between firm and customers (e.g., self-service vs. full service) Infrastructure supporting customers' use	Grocery shops launching services with ready-made food plans & recipes for the week Lobbying the government to invest in high-speed internet network in rural areas
	Provision	processes Number of competing providers (directly	to support access to remote work & education Using the liquidity crisis to buy a competitor that has been competing with
		or indirectly) How competing providers interact or cooperate in order to service customers	environmentally unsustainable business practices Commercial landlords collective developing a process for business tenants to apply for temporary rent reductions
Institutional transmitters	Representations	Terminology used	Labelling online delivery services "contactless" or "contact-free" to highlight their safety
		How media portrays the market Market research and statistics	Encouraging media to run stories promoting local recreation and tourism Convincing Gartner to develop market research on the available remote workforce management tools
		Key events and/or awards portraying the market	Pivot the 'Auctioneer of the Year' award and the related event to 'Online Auctioneer of the Year'
		Industry associations (e.g., businesses represented, themes promoted)	Sports associations including e-sports organizations as their members
	Norms	Technical standards (e.g., specifications, industry self-regulation)	Developing industry self-regulation related to safe restaurant practices
		Formal rules and laws (regional, national or international)	Promoting more strict national self-sufficiency laws related to agriculture as well as pharmaceutical products and equipment
		Social norms (e.g., societal values, industry conventions)	Augmenting and solidifying the transition to remote / flexible working arrangements in contexts that have had mandatory office presence

versions of the model through some medium that enables boundary crossing between market actors. Such market-shaping vision usually is based on a deep understanding of customers' and other stakeholders' value drivers, an ability to comprehend the entire market system outside the firm-customer dyad, an ability to reframe phenomena creatively or to change the reference points, and prioritizing the (long-term) value creation for customers and other stakeholders over the (short-term) value capture for the market-shaping firm (Nenonen, Storbacka, & Windahl, 2019).

When developing and evaluating possible visions for the future market, managers should pay special attention to the scalability of this vision: it is relatively easy to achieve even radical changes on a small scale, but the viability and durability of market-shaping is oftentimes dependent on achieving critical mass (Laland, Matthews, & Feldman, 2016; Patvardhan & Ramachandran, 2020).

Developing a scalable vision needs to be initiated by the shaping actor, but it will require dialogue with other actors in order to be moved from a protovision to a believable declaration of intent that can guide further strategy development for many market actors.

3.4. Outline the minimum viable system linked to this vision

One of the challenges of (business) marketing and management is that it offers limited granularity to the "operating environment" surrounding the firm (Möller et al., 2020). To put it bluntly: there is the firm, its immediate customers and suppliers – and then the elusive (cue your favorite term) industry / market / operating environment / landscape. However, to implement – or even conceive – market-shaping strategies, managers need to appreciate the different layers of their operating environment. For market-shaping strategies, the lower *meso* layer (Möller et al., 2020), or the strategic network or ecosystem is of particular importance. This layer consists of the "multilateral set of partners that need to interact in order for a focal value proposition to materialize" (Adner, 2017, p. 40). In a similar vein, niche construction theorists propose that organisms and organizations can become "landscape shapers" if they focus their shaping efforts to the niche they

occupy instead of their entire external environment (cf., Laland, Odling-Smee, & Feldman, 2000; Luksha, 2008).

This minimum viable system is the smallest and simplest system that can support any market-shaping vision (cf., Konietzko, Bocken, & Hultink, 2020). The boundaries of a niche can be depicted by the division of labor and distribution of relevant knowledge (Brittain, 1994), dependence on common resources (Hannan & Freeman, 1989) and common rules of the game (Luksha, 2008). Hence, the second step in market-shaping process is to outline one's "niche", which we label a minimum viable system: which actors are needed in order to realize the market-shaping vision in its most streamlined form?

When analyzing the role of higher-level learning in a market-shaping context, Storbacka and Nenonen (2015) argued for a need to expand the view beyond organizational learning. For the learning to have the ability to shape markets, the learning processes need to involve other market actors that are central to the focal actor, i.e., the minimum viable system. Therefore, the target is not only learning within the system, but learning as a system; i.e., groups of organizations coming together to learn as a group (Knight & Pye, 2005). This clearly indicates that a firm taking a supporter role needs to secure a role in the minimum viable system, and actively participate in the on-going learning process.

3.5. Drive changes in market-level properties

In addition to creating a market-shaping vision and involving the actors in the minimum viable system, for market-shaping to happen, the market has to be shaped: changes must occur in market-level properties such as market structures, market practices, and market agendas (Storbacka & Nenonen, 2015). The, again, will require participation of both the shaper and the supporter(s).

In practice, this is usually best done in two phases: first outlining the required changes to the minimum viable system and after that the required changes to the broader market. For a shaper firm this implies a need to start by hypothesizing potential changes needed in the minimum viable system for the vision to become real. A long list of possible changes can be categorized under three themes: changes linked to (a) exchange, typically related to modifying business models: developing the offering, adjusting price or pricing, and modifying matching methods for supply and demand, (b) the actor network, associated to modifying the focal firm's own supply network, modifying various customer-side features, and modifying provision, i.e., the availability of competing offerings, and (c) the institutional transmitters related to the market (e.g., representations that symbolize the market as well as the formal and informal norms guiding actor behaviors) (Nenonen, Storbacka, & Frethey-Bentham, 2019; Nenonen, Storbacka, & Windahl, 2019). A summary of the possible changes, and illustrative examples related to the COVID-19 crisis, can be found in Table 1.

Nenonen, Storbacka, and Windahl (2019) found that successful market-shapers had applied idiosyncratic patterns of shaping efforts, as the "elements are interconnected and contingent on each other" (p. 626). Hence, it appears that it is not possible to induce a market-level change by influencing only one of the aspects outlined in Table 1. Instead, market-shaping actors drive changes in several (but not all) market elements, either simultaneously or sequentially.

Finally, the term 'hypothesize' also carries a special meaning in this step. As market-shaping is a highly complex task, entailing reconfiguring both firm's business model as well as the market system, these strategies are often implemented through on-going iteration and experimentation (Nenonen, Storbacka, & Windahl, 2019). This iterative nature of implementing market-shaping strategies elevates the role of supporter firms: they will have their own responsibilities to drive changes in certain market elements, and to contribute to the collective learning process.

3.6. Secure that value is quantified and shared

Success in shaping markets requires that other actors than the shaper also change the way they operate. Hence, it is not surprising that even the earliest works on market-shaping recognized value propositions as key components of these strategies (cf., Kindström et al., 2018; Kumar, Scheer, & Kotler, 2000; Storbacka & Nenonen, 2011). These value propositions, summarizing the benefits of the future market to the particular actor, should be developed to every actor included in the minimum viable system. Furthermore, these value propositions should be "win-win-win": the future market system should leave everyone involved in the minimum viable system better off than – or at least as well off as – the current market (Nenonen & Storbacka, 2018; Nenonen, Storbacka, Sklyar, Frow, & Payne, 2020).

A detailed analysis of market-shaping value propositions reveals further two additional desirable features. First, value propositions that include quantification of the promised value and/or are verified by objective thirds parties tend to be more believable (Nenonen et al., 2020). Second, involving other actors in a collaborative process of developing and communicating the value proposition supports the acceptance of this value proposition (Nenonen et al., 2020). Hence, firm choosing supporter roles play a critical role in securing an appropriate approach to value creation and value appropriation in the minimum viable system.

3.7. Inviting actor engagement to implement

All strategies make or break at the point of implementation, and market-shaping strategies are no exception to this rule. However, implementing market-shaping strategies requires managers to embrace a much more collaborative approach than competitive strategies (Clarke & Fuller, 2010; Ketchen Jr, Ireland, & Snow, 2007). Internally, this implies cross-functional coordination and alignment, as no functional area is likely to command all resources or expertise related to market-shaping (Nenonen, Storbacka, & Windahl, 2019). Externally, collaborative approach to implementing market-shaping strategies requires engaging other actors to join the common change process. This interorganizational collaboration is likely to focus on actors supporting the minimum viable system, and it is can be supported by helping other actors to operate in the new market and to de-risk or incentivize them to change their ways (Baker & Nenonen, 2020; Nenonen, Storbacka, & Windahl, 2019).

Engaging actors in the minimum viable system can be difficult as the shaping firm does not have any formal authority over other organizations in the system. To achieve "impact without authority," market shapers need to orchestrate (Sull & Ruelas-Gossi, 2010) collaborative efforts by providing platforms or events that allow for emergence, by creating room for interactions, and building interdependence among actors in the minimum viable system. Orchestration of resources and activities in the minimum viable system requires a switch from a self-centric, firm-based view to an allocentric ("othercentered") view in which value is created and shared in the minimum viable system. The allocentric view allows firms to recognize and seize opportunities that can only be created by collaboration between organizations rather than by an individual firm, no matter how powerful (Nenonen & Storbacka, 2018).

Many organizational processes can be designed in order to invite extensive collaboration. One example of this is open innovation processes (Chesbrough & Appleyard, 2007) involving a multitude of actors across functional and corporate boundaries. A market-shaping firm can often focus primarily on the platform that enables collaboration, because in our information-saturated age, various supporting organizations already have all the data needed for combinatorial innovation (Yoo, Boland Jr, Lyytinen, & Majchrzak, 2012).

Finally, the inherent complexity and unpredictability of marketshaping strategies require that managers empower others – both inside their own organization as well as external supporting firms – to make decisions and adjust their activities as they learn (Storbacka & Nenonen, 2015). One powerful way of fostering such autonomous, but still coherent, decision-making under complexity are simple rules: a limited number of guidelines or heuristics designed to guide everyday decision-making in a way that balances concrete guidance with the freedom to exercise discretion and creativity (Bingham & Eisenhardt, 2011; Eisenhardt & Sull, 2001).

3.8. Defend against possible retaliations from threatened market systems

Even though market-shaping value propositions should benefit everyone in the minimum viable system, market-shaping strategies are not free from competition, quests for dominance and even outright retaliation. Systems theory suggests that harmonious interactions (i.e., 'resonance') between system elements and different systems is needed for long-term viability (Barile & Polese, 2010; Wieland, Polese, Vargo, & Lusch, 2012).

As well-designed market-shaping strategies ensure win-win-win outcomes for the actors within the particular minimum viable system, the competitive pressures are more likely to come from "external" market systems – especially if these associated market systems face reduced growth, profit or power as a result of the market-shaping strategy. Hence, market-shapers should avoid – or actively manage – possible retaliation by actors occupying negatively affected market systems (Lawlor & Kavanagh, 2015; Peters et al., 2020). This will require the allocation of resources and securing the support of various institutions in the market (such as industry associations). In this process both shapers and supporters play an important role.

4. Conclusions

We appreciate that making a dramatic strategic change during a time of crisis is a daunting prospect – and developing the required capabilities when nations are in lockdown is even more so. However, it can be done. We are currently collaborating with a global company to support them to develop and implement their market-shaping strategy, spanning multiple regions and product lines. All of the work – analyzing the current state of organizational capabilities, developing tools and learning modules, as well as providing support to teams when they are going through the process outlined above – has happened online. Only time will tell whether this organization will be successful in shaping their market, but their experiences hopefully show that it is possible to go after shaping strategies under these unusual circumstances.

In addition to market-shaping being possible during this COVID-19 crisis, it may also be essential. The array of challenges facing the globe – such as poverty, inequality, natural resource depletion, and climate change – are going to require the collective action of governments, civil society and businesses. Scholars are increasingly in agreement that corporate responsibility and philanthropic approaches these sustainability challenges are inadequate (cf., Haigh & Hoffman, 2014; Ritala, Huotari, Bocken, Albareda, & Puumalainen, 2018). Instead, what is needed are changes at the core of the commercial business models (Bocken, Short, Rana, & Evans, 2014) and a large-scale transition to the circular economy (Geissdoerfer, Savaget, Bocken, & Hultink, 2017). What would be a better time to ramp up these efforts than a global crisis, commanding the attention of every business? Our hope it is that the market-shaping process outlined in this paper helps businesses to rise to this challenge, whether they assume a shaper or a supporter role.

This period of disruption is also a major call-to-action for the researcher community. There are still a lot of unknowns when it comes to market dynamics and market-shaping strategies. For example, what kind of indicators should managers use to assess the malleability of their markets – and hence to time their market-shaping actions? How fast do market systems "cool off", closing the window of opportunity for proactive market-shaping? Is it possible to design markets to become

'antifragile' (Taleb, 2012), so that they would not only withstand but benefit from external shocks and turbulence? Do different external shock vary in terms of their market-level effects – and hence are the opportunities for market-shaping different when faced with environmental (e.g., earthquake, flood), economical (e.g., deep recession), political (e.g., fall of communist states in the late 20th century), or biological (e.g., pandemic) shocks? If we are asking the managers to rise to the occasion, be agile and turn the current crisis into a major opportunity, we researchers should do the same too.

Acknowledgements

This research is funded by a Marsden grant (UOA1333) from the Royal Society of New Zealand.

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